

## YouthSource Summer Environmental Water Resources Class OVERVIEW

by Roger Rigor, Instructor

The scale at which our Earth is changing because of modern human activities is unprecedented. Overexploitation and pollution are pushing our planet toward an environment that might alter ecological balances in a global scale. James Lovelock's *Gaia Hypothesis* considers the earth as an organism, where its parts are actually intertwined towards a single *living* system. All things alive and their environment work together and, along with the view of Fritjof Capra, the "nature of the whole is always different from the mere sum of its parts." And the basis for these parts that function as a system is the use of water and its availability to most earthly species.

Just like its organisms, which are over 60 percent water, Earth is mostly covered by water. Ninety seven percent of the Earth's water is saltwater, which is of course, not suitable for us to drink, as it contains too much salt. Only 3 percent of the world's water is freshwater, and only about one fifth of that 3 percent is available for us to use (the remainder is locked up in glaciers and ice sheets).

Water was never a concern for the thousands of years man survived. Societies and migration routes were purposefully established near areas with plenty of freshwater. Today, the concern over the availability of fresh water comes from not only the quantity of freshwater available to us, but also the quality of that water. As human population grows exponentially, so do our rates of water consumption and water pollution.

Already, 25 percent of the world's people do not have access to safe water, with five to 10 million people a year dying from water borne diseases and this number has been greatly increasing over the last decade. The United Nations predicts that by year 2025, one in every three people in the world will experience a shortage of freshwater, and there will be particular shortages in the Middle East, India, Pakistan and China.

What does this mean? Currently, oil is a nonrenewable resource over which there are already immense political and social conflicts. This century, we could see this change: Freshwater could become the main source of conflict. Major wars could be sparked because of lack of water. People can survive without oil but we definitely cannot survive without water. We are rapidly converting water from a renewable resource into a non-renewable resource.

The five-week course will culminate with a special edition of the newsletter SciFYI with written contributions from this year's cohort of students. Through this integrated classroom and field study approach, high school students will get a glimpse of the current state of our environment, especially the state of our water supply and get involved locally as part of the community's attempt to avoid the planet's ecological dilemma tipping over to a global certainty.



### About the Instructor **Rogelio 'Roger' Rigor**

A teacher with the Seattle School District, Roger has been with the Youth Source Summer project for a third consecutive year. He has been a teacher for the past 16 years with the last 13 years as a Math/Science teacher at the Seattle Public Schools' Middle College High School (MCHS). Starting off his first year at South Seattle Community College MCHS, he spent the next 11 years at Ida B. Wells School for social justice, the University of Washington MCHS site. He returned to South Seattle Community College MCHS site last fall. Roger is now back at Wells School teaching Math and Science. He was born and raised in the Philippines but graduated at Western Washington University, and took his masters in Math Education at the University of Washington.

# Curriculum

## WEEK 1: July 5 – July 9

### July 6 – Orientation

- Initial Lecture: Biosphere
- Laurel Preston: Sci-FYI Newsletter Overview
- Reading of the Week

### July 7 – Lecture

- Film: Fresh Water
- Internet Activity

### July 8 – Field Trip: Seattle Aquarium/ UW Botanical Garden

### July 9 – Lecture

- Film: “Deep Ocean”
- SciFYI writer’s workshop

## WEEK 2: July 12 – July 16

### July 12 – Field Trip: King County South Treatment Plant Tour

- Post tour lesson/discussion/work

### July 13 – Lecture

- Reading of the week
- Film: “Erin Brockovich”

### July 14 – Field Trip: Cedar River Wa- tershed Tour

- Post tour lesson/discussion

### July 15 – CPR Training

### July 16 – Lecture

- Film: “Shallow Seas”
- Guest Speaker: Garry Owens (former Black Panther/community organizer of LELO & JustWATER)
- SciFYI Writer’s Workshop: Mos Def’s “New World Water” song & freewrite

## WEEK 3: July 19 – July 23

### July 19 – Lulu’s Workshop:

“Water is Life, is Art, is HipHop”

- Coca-Cola lecture
- Guest Speaker: Gabriel Teodros (local teaching artist)

### July 20 – Field Work: Invasive Plant Clearing at Shadow Lake Bog

### July 21 – Lecture

- Film: “Taking Root”
- Reading of the week

### July 22 – Field Trip: King County Environmental Laboratory Tour on Lake Union, Ballard Locks & Magnolia Bluff and Queen Anne Bluff

- Post tour lesson

### July 23 – Lecture

- Film: “Ice Worlds”
- SciFYI Workshop
- Guest Speaker: Christine Guiao  
“Water, DNA, & the Body”

## WEEK 4: July 26 –July 30

### July 26 – Lecture

- Reading of the Week
- Film: “Natural Connections”
- SciFYI Workshop with Guest Speaker: Ms. Davis: Making a collective “Water Poem”
- Documentary: “Diary of Jay-Z: Water for Life”

### July 27 – Field Work: Coal Creek

- Orientation: “Macro-Invertebrate Sampling and Training”
- Lecture & working on drafts

### July 28 – Field Work: Nature Consortium’s Forest Restoration)

- Internet Activity: BPI Oil Spill on [democracynow.org](http://democracynow.org)

### July 29 – Guest Speakers/Film

- Guest Speaker: Larry Jones from King County “Cottage Lake Water Quality”
- Film: “Poisoned Waters”
- Guest Speaker: Aaron Dixon (Ex-Black Panther) “Environmental Racism and Justice”

### July 30 – Field Trip: Duwamish River Clean up w/Puget Sound Keepers boat ride and visit to Duwamish Tribe Long- House

- Final drafting workshop
- Submission of Sci-Fyi material for printing

## WEEK 5: August 2 – August 6

### Aug. 2 – Reading of the Week

- Recap lecture
- Guest Speakers: Michael Woo and Khepra from Got Green “Water, Urban Environments, Green Jobs, etc.”

### Aug. 3 – Recap Lecture

- Finish newsletter drafts
- Internet activity: [storyofstuff.com](http://storyofstuff.com) (discussion of consumerism and over-consumption)

### Aug. 4 – Lecture/Discussion/Review- Course Recap

- Film: “Food, Inc.”
- Guest Speaker: Kristi Brown of That Brown Girl Catering & GO Live! (with healthy snacks including homemade hummus, vegetables & chips)


### Aug. 5 – Field Work: Cottage Lake Weeding

### Aug. 6 – Final Exam

- Final drafts of Sci-Fyi articles due
- Guest Speakers: YouthSpeaks by Robin Park & Kyle Riche/Language Arts/LA
- Final Field Trip: WILD WAVES!



## About King County's Sci FYI

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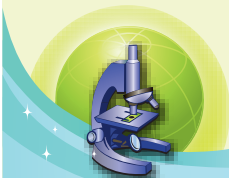
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